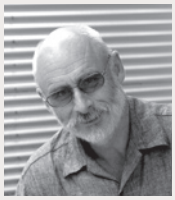

CONSENTING RENOVATION WORK

BRANZ has found that getting renovation and alteration work consented – given that most of the work will need to be consented as an Alternative Solution – is one of designers' key concerns. A few tips may help.

By Trevor Pringle, ANZIA, BRANZ Principal Writer

Studies by BRANZ have shown that, generally, New Zealanders are not great at maintaining their dwellings and this leads to higher costs when renovation work is undertaken. Interestingly, much of the renovation work carried out is not really to address the lack of maintenance, but instead to bring the building into the 21st century by improving indoor/outdoor flow and upgrading bathrooms and kitchens.

Problems getting renovations consented

Some of the concerns expressed by designers in BRANZ Study Report 203 *Determining the industry need for a retrofit and renovation information resource* included:

- difficulty in meeting current minimum performance requirements
- time delays due to Building Consent Authority (BCA) questions
- defining what upgrading work is mandatory
- difficulty in applying Acceptable Solutions to renovation work
- the level of detail required
- satisfactorily proving performance of existing construction.

Compliance path options

Build 113 (August/September 2009, page 29) and *Build* 114 (October/November 2009, pages 30–31) covered the nine compliance path options designers can use to show the BCA how proposed work outside the scope of Acceptable Solutions will meet the performance requirements of the relevant Building Code clauses. These path options also apply to the submission of consent documents for a renovation project.

The nine compliance paths are:

1. comparison with a compliance document
2. comparison with other documents
3. comparison with in-service history
4. expert opinion
5. comparison with a previously accepted Alternative Solution
6. product certification
7. Department of Building and Housing determination
8. Verification Methods
9. Acceptable Solutions.

Compliance paths 6 to 9 are deemed to comply solutions – that is, when they are followed exactly, the BCA must consent the application.

The condition of the timber framing at the bottom of the wall is a good indicator of how weathertight the cladding has been over the life of the building.

Scenario 1 uses in-service history and expert opinion

For a design that matches existing construction but uses painted finger-jointed pine weatherboards instead of totara, a combination of compliance paths 3 and 4 would seem logical. Evidence to be presented includes, such as photos to show that the in-service history has been satisfactory (compliance path 3) and a written inspection report (compliance path 4) indicating that the cladding, existing materials and detailing are meeting the requirements of the Code for weathertightness and durability – the two key issues for cladding.

The next step is to show in the drawings and specification that the new work will be using details that match the old, for example, weatherboard profile and cover, flashings and so on.

The one key question to be answered is whether the performance of the finger-jointed H3.1 radiata pine, which will be primed and painted and installed directly to the framing over an absorbent synthetic wall underlay will be as good as the original totara installed without a wall underlay. In the writer's view, it should be.

IF IT WORKS, WHY CHANGE?

In one particular case, a design for cedar shingle wall cladding (to match existing) was initially proposed to be installed over a plywood sheet backing, which meant the cladding alignment was lost at the junction of the old and new. →

The BCA accepted that there was no evidence of any failure of the existing painted cedar shingle cladding (using compliance path 3) therefore, they would accept the new painted cedar shingles installed *without* the plywood backing. The lack of damage was confirmed at an early site inspection by the BCA when a small part of the wall was opened to allow the new work to be merged in.

Scenario 2 uses other documents

In the case of a first floor addition to an existing building, the bracing provided needed to be determined to ensure the lower floor would be rigid enough to support a new upper floor. However, no detailed drawings of the lower floor existed. The designer proposed that compliance path 2 be used, with the building's bracing assessed in accordance with NZS 3604:1984 *Timber framed buildings,* which gave generic bracing ratings for plasterboard sheet.

As this building was already hard lined with the plasterboard fixed to the wall framing, an assessment of the generic bracing provided could be made. This showed that the existing structure was sufficiently braced and therefore capable of taking the new upper floor.

Scenario 3 uses BCA acceptance nearby

In this scenario, one architectural practice recently obtained a building consent (using compliance path 3) to construct an extension using a direct-fixed cladding. The risk score of the building (under E2/AS1) required a drained and vented cavity but the cladding was matching the existing direct-fixed cladding.

A designer from a different practice is working on a similar project in the same street with a building of comparable age and materials. The work proposed is not as extensive but installing a cavity would make merging the old into the new difficult. An option would be to use compliance path 5 (using the fact that not installing a cavity was accepted by the same BCA on the nearby property) to support the consent application. This could be used in conjunction with compliance path 3.

An acceptance by a BCA in another locality may also be used but making the direct comparisons required may be more difficult. The key with using compliance path 5 is that the two properties are similar in all respects – exposure to weather, height, construction details and materials being used.

Determinations

Compliance path 7 is a valid option in situations where resolution between applicant and BCA seems unlikely. The Department of Building and Housing (DBH) has a well documented process in place for processing determinations. A fee of either $250 or $500 plus GST is payable, dependent upon the type of determination required. Legislation requires the DBH to provide a determination within 60 days – as long as the applicant has followed the process and provided the required documentation.

The results of previous determinations are available on the DBH website (see www.dbh.govt.nz/determinations) and may also be used under compliance paths 2, 4 or 5. However, citing a previous successful determination is not a guaranteed path to future acceptance for other projects.

Acceptable Solutions

While Acceptable Solution details may not be directly applicable in a number of cases, in some situations, they are. For example, older weatherboard clad buildings where E2/AS1 could be used in the consent application for renovation work (compliance path 1 to support a similar detail, or compliance path 9 directly).

Verification Methods

Compliance path 8 (Verification Methods) is likely to apply to renovation work where a calculation is used to show compliance, such as the calculation method or use of BPI to demonstrate H1 compliance. It is unlikely that a renovation solution would be subject to a specific test method (such as E2/VM1) because of the cost involved.